



BARRY SEARS:

Simple Solutions for Global Wellness



I believe that we may be witnessing the de-evolution of the human species. That's the bad news. The good news is that we can correct our course, in as little as 30 days, if we choose. How do I reach this startling conclusion? The evidence is clear as we look back through the development of human beings, what made us what we are, and the options that will shape our future. Diet has an enormous effect on behavior, and it can change our collective future worldwide.

There are some 30 million species on earth. What gave *Homo sapiens* the ability to become the dominant species? What made us so special? It certainly wasn't our physical skills.

If we go back 150,000 years, genetic modeling allows us to trace every human being on the face of the earth today to a very small African tribe. This group probably numbered about 1,000 individuals, certainly no greater than 5,000. How did this one small tribe of Africans, and their descendants, come to dominate the world?

You have three options, and all of them are compatible with the genetic evidence saying that we all come from the same genetic stock. Option One: God put Adam and Eve in the East

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African Rift Valley. That theory is consistent with the genetic information.

Option Two: Aliens from outer space came and interbred with our pre-human ancestors. That too would be consistent with our genetic information.

The third option, and the most plausible, is that our ancestors in that small group of Africans blundered onto brain food by pure luck. This has nothing to do with Darwinian evolution based on natural selection. This is Lamarckian evolution, based on the luck of the draw.

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The geology of the East African Rift Valley in ancient times created large lakes that provided an environment ideal for the growth of algae. The people living on the shores of those lakes didn't eat the algae directly. The algae were the main food for shellfish, and the human beings ate the shellfish that washed ashore. Their powers extended to cracking the shells in order to get to the meat inside. That meat contained large amounts of Omega-3 fatty acids. This food gave this one small group of Africans a significant advantage over all the other tribes and species.

Over the next 50,000 years their numbers built up. Then, about 100,000 years ago, groups of this larger population left Africa and meandered through out the world. Through all their wanderings, they always stayed close to the seashore, with its supplies of shellfish.

The breakthrough in human dominance in evolution occurred about 40,000 years ago, when out of nowhere our species developed new tool-making abilities. Religion appeared. We developed art. Where did these major accomplishments come from?

That time frame corresponds almost exactly with the point when humankind learned to fish. This allowed us to obtain even higher levels of Omega-3 fatty acids than we'd previously absorbed from shellfish. There's a very strong argument for say-

ing that these higher intakes gave us sufficient brain power to dominate the world.

If that's true, then the converse is also true. What if you take Omega-3 fatty acids out of the human diet? Will you see a significant drop in brain power?

The answer is that you do. But not for the first generation. There's still enough reserve capacity present to maintain the same level of brain function for a while. By the second and third generations, however, severe neurological deficits manifest themselves.

Brain power made humans dominant in the world. Brain power is highly dependent on our diet. There are two things we need in order for our brains to work at peak efficiency. One: A stable supply of blood glucose. That's the only fuel the brain can use. Two: An on going supply of these long-chain Omega-3 fatty acids. That's why your grandmother called fish oil, "Brain food."

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If we in America in fifteen or twenty years have not changed the way we eat, our country, as rich as it is, will be bankrupt.

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If we want to maximize our human potential, we have to make our diet compatible with our genetic makeup. That genetic makeup is dependent upon stabilizing blood sugar for optimum brain function, which means stabilizing insulin, and finding adequate levels of long-chain Omega-3 fatty acids for optimal brain output.

If either of those begin to slip, the things that make us human begin to erode. For example, one of the things that we like to think of as a hallmark of being human is acting with civility. But when somebody has low blood sugar, what's the last thing on their minds? Politeness. That's what happens when you don't stabilize blood sugar to the brain. Yet you can rectify that blood sugar deficiency rapidly.

On the other hand, this very subtle and insidious decrease of the supply of Omega-3 fatty acids to the brain begins to short-circuit all the key factors that gave us our evolutionary advantage.

We have two major problems facing the world. One, we have too many people. We're competing for resources. Thomas

Vegetarian fish like tilapia, which are being harvested increasingly as populations of carnivorous fish decrease, have less toxins. But they have low amounts of fat, and therefore low amounts of fatty acids. They're a good source of protein, but not a very good source of brain food. So supplements are the best source at this point.

Omega-3 fatty acids aren't just important to the brain. These nutrients are vitally important to the body's ability to control inflammation.

When you step back and view medicine as a whole, you see that much of its focus is on controlling inflammation. Every chronic disease we fear—heart disease, cancer, Alzheimer's—is an inflammatory disease. Even the aging process is inextricably tied to inflammation.

Can we get away from this problem by taking anti-inflammatory drugs for the rest of our lives? Unfortunately not. When taken long term, anti-inflammatory drugs cause immune suppression, osteoporosis, and death. What's the alternative? What's out there in nature that has powerful anti-inflammatory properties without side-effects? It again turns out to be fish oil.

Malthus was right, but wrong. He was right to ask the question, "Are we outstripping our capacity?" but he was wrong about the cause. Our problem is not a lack of calories, but a lack of the nutrients that control our hormonal responses. Things we want out of life—better health, better physical performance, better mental acuity, longevity, better emotional stability—are all controlled by our hormones. We control our bodies' production of those hormones by the food we eat. But the availability of the nutrients crucial to controlling those hormonal responses is growing scarcer by the moment. For many centuries, the basic human problem was staving off outright starvation. But today, for the first time in history, we have more overweight people on the face of the earth than malnourished people.

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This has not been caused by any genetic change. What has changed in a major way is the methods we use for processing food. Today, the cheapest forms of calories are refined vegetable oils and refined sugars. Twinkies are the cheapest source of calories. While we can feed our growing population, we can't feed them right.

These are now global dilemmas. They are far more frightening for the future of mankind than global warming, because the changes can take place very quickly, within one or two generations. Yet we have the technology and the power to reverse them if we choose to. The question is, do we have the political will?

Science allows us to discriminate between different possibilities. Science says, "Every human came from a small group of Africans." We have three possibilities that give rise to the same output: aliens, Adam and Eve, or brain food. The first two, we can't do anything to reverse. The third possibility gives us the option of reversing the process.

A recent study took kids who had Attention Deficit Disorder (ADD) and gave them fish oil instead of Ritalin (EFA [Essential

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Fatty Acids] Supplementation in Children with Inattention, Hyperactivity and Other Disruptive Behaviors, Lipids magazine, September 2003). Their behavior normalized. It took about 30 days. I'm conducting a study at Harvard Medical School using higher doses

of fish oil, because we've seen that within about six weeks, children don't just become better; they become superkids. Kids with ADD have learned a variety of tricks to try to help themselves cope with the world. Once you solve their basic problem, their need for these behaviors diminishes.

Hormones are the key to our future, and food is the key to our hormones. If we make the right choices of food, we can see significant changes in our society at every level within a matter of months. To make the world a better place, we need to feed the world right.

We have too many people on the face of the earth to supply them all with sufficient quantities of animal protein. We need

renewable sources of protein, and the best renewable source turns out to be soybeans. One of my books, *The Soy Zone*, says, “Here’s the answer. If we want to have six billion people on the face of the earth, we can do it if we make good use of renewable vegetarian sources of protein.” But you need adequate amounts, like any drug. If you give a placebo dose of the drug, it doesn’t work. If you administer adequate amounts, it works every time.

The other dilemma is that soy doesn’t provide fish oil. We may have enough basic fish stocks at the moment, if we use them sustainably. But right now we’re hunting fish to extinction.

The fish oil used in clinical studies comes from “trash” fish. These are species like sardines and anchovies, not the varieties you find on the menu in a five star restaurant. These species are not under intense cultivation. But the time will soon come when supplies of even these abundant varieties start to decrease. When we deplete one fish stock, we start overfishing another. Our technology is so sophisticated that fish can run but they can’t hide. The nutrients that made us human may well be disappearing from the face of the planet. When they’re gone, they’re gone. And when they’re gone, we’re not far behind. It won’t happen in my lifetime, but it will probably happen in my children’s lifetime. That doesn’t mean the human race will disappear, but we’ll evolve into a new form, similar to Jaba the Hutt, both in demeanor and physical appearance.

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With sustainable sources of protein, and sustainable sources of fish oil, you can take the most impoverished people in the world, and—in just six months—dramatically change their future. I know it can be done. The question is, “Will it be done?” The kinds of studies I’ve been doing, and referencing in my books, point the way for governments and policy-makers.

In Mexico, governments have embraced this technology much more than in the United States. Mexico has the benefit of not having lots of money to throw at the problem. Mexicans have to find ways of solving their health problems that are more innovative than buying yet more drugs.

A number of state governments in Mexico have endorsed the Zone diet and Zone supplements. They've witnessed significant improvements in health among people following this regimen. After seeing the data, two of the 28 state governments in Mexico have endorsed the program for all their residents. Zone products are dispensed through physicians who have their own Zone Centers. They're making food the primary drug to improve the health of their people.

You have to set a hormonal baseline for your body. It's like building a house. You can either build it on a concrete foundation, or on sand. The one on concrete will have

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a longer life-span. The more you control the hormones in the body through the food you eat, the less drugs, if any, you need to maintain a state of wellness. This is my clarion call. Our society treats medicine as a discipline for treating disease. But the days of the magic pill are over. Penicillin was a magnificent exception: one bug, one pill, game over. But its success mislead us into taking the same approach for other diseases; what we now have instead is chronic, multi-factorial diseases. All that conventional medicine can do is treat the symptoms of these diseases.

The focus of our medical endeavors needs to shift, from treating the symptoms of chronic disease, to maintaining wellness as long as possible.

How do we define wellness? Medicine can provide standards for wellness; one very useful one is the degree of inflammation you have in your body, as measured by blood samples.

Inflammation as an indicator of wellness is a growing measure in the medical world, at least at the highest levels. Whatever technology controls inflammation will command the high ground of medicine in the twenty-first century. All the drug companies are looking for new, remarkable, powerful anti-inflammatory drugs. I believe we've already found them: one is fish oil, the other is the Zone diet.

How can the Zone diet be anti-inflammatory? Fish oils are anti-inflammatory by a direct interaction. There's a group of hormones called eicosanoids that control the inflammatory process. The more fish oil you consume, the less inflammation you have. If we ask questions like, "Who are the longest-lived people in the world today," or, "Who are the people with the longest health-span?" (health-span equals life-span minus years of disability), or "Who has the lowest rates of heart disease," or, "Who has the lowest rates of depression," or, "Which nation seems to have the most civil society," the answer in every case out to be the Japanese.

By contrast, who are the most warlike people in the world today? Which nation is filled with factions that love to fight for the sake of fighting? This prize might go to the Afghans. You don't see a whole lot of fish oil consumed in land-locked Afghanistan.

There are two fatty acids in the blood that server as markers of inflammation. One is called arachidonic acid. It's the building block of all the pro-inflammatory eicosaniods. The other fatty acid is called eicopentaenoic acid. It is the building block of all the anti-inflammatory eicosanoids. The ratio of these two fatty acids gives us an anti-inflammatory goal to aim for. You don't want this ratio too high, you don't want it too low. If you keep it within a certain range, you control inflammation. And if you control inflammation, you take a giant step toward improving world health and world civility. All of a sudden, much of the complexity of medicine can be reduced to the balance between these two fatty acids in the blood.

Americans are not only the fattest people on the face of the earth, they're probably the most inflamed. The average ratio of these two fatty acids in the Japanese population is about 1.5. In Americans, it's about 12. In kids with attention deficit disorder, it's between 40 and 50. For kids in the ghetto, the ratio is closer to 100. They don't have a chance.

Yet within 30 days we can change their prospects. It takes up to 30 days to build up sufficient levels of fatty acids in a deplet-

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Fish oil also raises levels of serotonin. Serotonin can be thought of as a morality hormone. The line between savage and compassionate behavior is a thin one. The less serotonin in the body, the thinner the line. Fish oil is one of the few drugs that can raise both serotonin and dopamine, the hormone in the brain that produces a sense of well-being, and of focus. Fish oil is so effective in these clinical studies because it treats not only ADD—lack of focus; it simultaneously treats depression with serotonin.

In *Zone Perfect Meals in Minutes*, I demonstrate that it's fast and easy to make Zone meals. Once people try it, they discover they like it. If you can keep your hormones in balance, life will be very good. Let them fall out of the Zone, and it becomes much tougher than it needs to be.

Once you try this method for as little as seven days, it becomes so self-evidently gratifying that no further argument is required. Human nature says, "Keep doing whatever feels good." That's why if you get a person into that Zone for a little while, they not only say, "I feel good," but they also say, "I feel so much worse when I'm out of the Zone." Human nature becomes your greatest ally, because we want to feel good all of the time.

The scientific data supporting this approach is clear. It's now a matter of marketing. It's like a political campaign, we're competing for the hearts and minds of human beings, saying, "Here's the way to a better life."

Philosophy and religion give you rules for living a civil life. When you stabilize your hormones, all those injunctions about doing good make sense. People who've learned to keep inflammation under control can live the longest, healthiest and most moral lives. They can lead civil lives, lives that make the world around them a better place.